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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/585,337

11/16/2006

Yoshikazu Yamakawa

(06:82)

2619

2119

7590

04/29/2009

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ALEXANDRIA, VA 22314

EXAMINER

RAEVIS, ROBERT R

ART UNIT

PAPER NUMBER

2856

MAIL DATE

DELIVERY MODE

04/29/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/585,337	<b>Applicant(s)</b> YAMAKAWA ET AL.	
	<b>Examiner</b> Robert R. Raevis	<b>Art Unit</b> 2856	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>7-6-06</u> . | 6) <input type="checkbox"/> Other: ____.  |

### **DETAILED ACTION**

Figure 8 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The disclosure is objected to because of the following informalities: on p. 9, "turns" (line 4 form last) should read --turn--.

Appropriate correction is required.

Claims 1-4 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

As to claim 1, how does the structure permit for a determination as to "whether or not the sample is introduced" into the measuring unit? Consider that the sensor 5 is downstream of the densimeter 1, and thus can only determine whether or not the sample has been introduced into pipe 101, or even whether the sample has passed entirely through the measuring unit. After all, to determine whether the sample is introduced into the densimeter would require a sensor on the

fluid input of the densitometer. (Note: Consider that sample may have entered the unit 5 (and thus, have been “introduced”), and that yet no sample may have yet reached the sensor 5.)

Claims 1-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to claim 1, “introduced” (line 3) into the measuring unit (“introducing liquid sample into a measuring unit”, line 2) is problematic, as the disclosure’s unit 5 determines if the sample has been introduced into pipe 101, *and not into the measuring unit*. Thus, the claim is not consistent with the written specification.

As to claim 4, “the vessel” lacks antecedent basis.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Huber teaches a sampling apparatus, including: peristaltic pump 10 for introducing sample into a “nebulizer 22 *in* a spectrometer” (italics added, line 2 of ABSTRACT); determining unit 44/46 that provides an indication as to the rate of sample entering the nebulizer 22; and control unit 46 for controlling the pump 10 based upon the determination of rate. However, the determination does not extend to a determination of no (“not”, on line 3 of Applicant’s claim 1) flow.

Nicoli teaches (Figure 5) an apparatus, including: pump SP for introducing liquid sample into a measuring unit 16, the measuring unit providing for a means for determining a “particle

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count rate” (col. 23, lines 61-62) indicative that sample was introduced; and control 54 for controlling the pump SP’s “output flow rate  $F_s$ ” (col. 23, line 64) based on the determination. However, Nicoli does not teach use of a peristaltic pump, and does not employ separate “measuring unit” and “determining unit” as called for in Applicant’s claim 1.

Karlberg et al teach (Figure 1) an apparatus, including: pump 4 (“example, from its piston”, col. 6, line 65) to introduce sample into a detector 17; flow meter 6 that measures that the amount of sample directed towards the detector; and control unit 29 for controlling the pump. However, the pump is not “peristaltic”, the measured flow 6 is not “introduced” to the detector (as the sample pumped 4 through meter 6 is pumped onto into volume 10 and not the detector 17), and the control unit 29 does not clearly control the pump based upon the flow meter 6.

Binder et al teach (Figure 1) an apparatus, including: peristaltic pump 6 for passing sample into a sample bottle 7; sensor 8 that both starts and stops (i.e. controls) the pump. However, there is no determining unit for determining whether or not the sample is introduced into the bottle 7, and the pump does not introduce sample into a measuring (i.e. bottle 7 is not a measuring unit). (Note: The bottle may be a graduated container, but still, there is no determining unit for determining whether or not the sample is introduced into the bottle 7.)

Griffith et al teach (Figure 1) an apparatus, including: peristaltic pump 6 for passing a sample into a collector 18; determining unit S for determining whether or not liquid has reached the unit S; and control for controlling the pump based upon the output signal from unit S. However, there is not determining unit for determining whether of not the sample is introduced into the collector 18, and the collector 18 is not a “measuring unit”.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert R. Raevis whose telephone number is 571-272-2204. The examiner can normally be reached on Monday to Friday from 5:30am to 3pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams, can be reached on 571-272-2208. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Robert R. Raevis/

Primary Examiner, Art Unit 2856